International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM 2016 vol.2, pages 643-650

Zooplankton communities of the lena river delta (Siberia, Russia)

Nigamatzyanova G., Frolova L.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© SGEM2016.The article represents the current status of zooplankton communities in different types of water bodies of the Lena River Delta (The Republic of Sakha (Yakutia)), Eastern Siberia, Russia. Zooplankton species compositions have been investigated in each of thermokarst and polygonal lakes of the areas of study. The diversity of zooplankton species was clearly dominated by representatives of the type of Rotifera. On the other hand, Cladocera and Copepoda species were represented approximately in equal proportions. The abundance of Rotifera was higher in zooplankton communities. The zooplankton abundance was determined by rotifers, the biomass – by Copepods. The main species complex consisted of Kellicottia longispina, Keratella cochlearis, Conochilus unicornis, Eudiaptomus graciloides, Cyclopos genera and juvenile cladocerans. The reservoirs were characterized as clean or moderately polluted and oligosaprobic with deviation in β-mezosaprobic zone. The communities were dominated by widespread zooplankton species where Holarctic and Palearctic organisms were presented approximately in equal proportions. According to biotopic distribution eurytopic species represent half of all the specific composition, planktonic and littoral species we re presented in equal proportions. Zooplankton communities in thermokar st lakes we re more similar to themselves than the thermokarst and polygonal waterbodies' zooplankton communities. There wa s clearly seasonality in dominance of zooplankton species and their association with a type of the water body.

http://dx.doi.org/10.5593/SGEM2016/B52/S20.083

Keywords

Arctic, Hydrobiology, Permafrost, Water assessment, Zooplankton